

EPA, DNR Provide Updated Cleanup Information

By Greg Swanson, Wisconsin Department of Natural Resources

The current status of the cleanup on the Lower Fox River between Appleton and Green Bay was the topic of discussion at a public meeting on Tuesday, May 24 in De Pere.

About 45 people heard presentations by U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources staff and asked questions about the additional sampling that took place in 2004.

Those sampling results, which revealed that an area below the De Pere Dam has very high levels of PCB-contaminated sediment, could affect the design of the cleanup this year, according to Jim Hahnenberg, EPA remedial project manager.

“Since most of the contaminated sediment is near the surface, this could be harmful to sport fish and to people if they eat that fish,” he said. “It wasn’t a surprise that we found additional contamination, but it was a surprise to find the levels to be as high as they are. It certainly supports the need for anglers to follow the fish consumption advisories for the river.”

Hahnenberg said the agencies use 1 part per million as the “action level.” Some of the samples in this particular area were between 1,000 and 3,000 ppm. “We will further review the information this summer before deciding how to deal with it,” he added.

A March 2004 agreement between the agencies and Georgia-Pacific and NCR Corp. committed the companies to designing the cleanup for this (downstream) portion of the river, often referred to as operable units 2-5. Additional sediment (mud) sampling was also done last year to provide a more detailed look at the sediment than the sampling that was done when the cleanup decision was originally



A sediment core taken from the Lower Fox River in the vicinity of the De Pere Dam.

announced in June 2003. More than 8,000 sediment samples have been analyzed.

Other results of what was learned from that sampling were presented at the meeting:

- There is more contamination than originally believed. From Little Rapids to Green Bay (OUs 3 and 4), there is about 10 percent more PCB-contaminated sediment than the original estimate.

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DNR, State Health Department Continue Educational Efforts

By Susan Pastor, U.S. Environmental Protection Agency

With Wisconsin's fishing season in full swing, the state's Departments of Natural Resources and Health and Family Services plan to move ahead with outreach to minority communities known to fish along the Lower Fox River.

"Right now, we're working to secure enough funding to further advance state and local outreach activity, especially among minority groups," said Jim Morrison, DHFS health educator.

In the meantime, the department will keep attending public meetings, talking with local community action groups, putting up warning signs, and doing stream-side (in-person) interviews.

During the interviews, anglers are asked what type of fish they caught and whether they planned to take them home for a meal. Most of the interviews will be done below the De Pere Dam near the mouth at Green Bay since that is a popular fishing spot for locals as well as for visitors.

Morrison acknowledged that language is a barrier. This is why he and his colleagues have been talking to students in English as a second language classes. Since the speakers recognize that their audience may continue to keep what they catch, their main topics have primarily focused on how to properly fillet fish so only the "safest" parts of the fish will be eaten.

Morrison said his department would like to have more materials translated into different languages, as funding permits. He and his colleagues realize that more can be done, so they will always be looking for new ways to improve communication with minority populations.

For now, public health staff can be seen along the river posting signs, talking to people and handing out literature. According to Morrison, "If this is done often enough, word (about the fish advisories) will get around."

DNR is also involved in spreading that word. According to Northeast Region Public Affairs Manager Tom Turner, staff from the Green Bay office recently



DNR and the state health department continue to put up warning signs like the one in this photo to educate anglers about fish advisories along the Lower Fox River and Green Bay.

attended a presentation on working with the Hmong population. Hmong community leaders advised using techniques such as focusing on those people already established, learning a few words in their language, and using pictures to convey messages.

Over the past few years, specific DNR staff has been assigned to work closely with the Hmong community. The outcomes include:

- trying to help Hmong people better understand the hazards of PCBs.
- producing/distributing a video that details the hazards of PCBs and mercury.
- cooperating with DHFS in helping anglers learn how to process the fish they catch to keep PCB intake levels at a minimum.
- training for new conservation wardens on how to work with Hmong anglers.

To request a speaker for a Hmong or Hispanic organization, contact Jim Morrison, DHFS, (920) 267-3227, morrijm1@dhfs.state.wi.us or Greg Swanson, DNR, (920) 264-6024, gregory.swanson@dnr.state.wi.us.

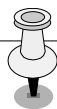
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- Other portions of the river closer to the De Pere Dam and to the mouth at Green Bay also had more contaminated sediment and/or at higher levels than originally estimated.
- Much of the sediment contains a considerable amount of sand, which has low PCB levels. This may allow alternative handling and disposal methods for the sand, which could reduce the amount of landfill space needed.

“There are three main implications for the cleanup design that result from the increased amount of sediment that will need to be removed,” said DNR Implementation Coordinator Greg Hill. “More landfill space may be needed, more time may be needed to complete the cleanup, and the cleanup may be more costly.”

The disposal of the dredged sediment is also a major consideration at this point. Initially, 20 landfills within a 60-mile radius of the Lower Fox River were evaluated based on the available space the landfill had for accepting the sediment, the suitability of the landfill for PCB disposal, and the current operating agreements for each landfill. Three or four of these landfills are still under consideration. At this time, landfill disposal for the large amount of PCB-contaminated sediment under 50 ppm is much cheaper than vitrification. However, this technology is still under review for disposal of the sediment with PCB levels above 50 ppm.

“Federal law says that sediment with PCB contamination over 50 ppm needs to be sent to a landfill that is licensed to accept such material,” Hahnenberg added. “This means that we would have to send it out of state, so we are evaluating whether vitrification may be cheaper for disposing of sediment with these higher PCB levels.”



Out and About...

By Susan Pastor, U.S. Environmental Protection Agency

The Fox River Intergovernmental Partnership is made up of U.S. Environmental Protection Agency, Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Oneida Tribe of Indians of Wisconsin and Menominee Indian Tribe of Wisconsin. These partners, as well as other supporting agencies, regularly provide speakers to organizations in the Fox Valley area. The following people recently made presentations:

May

- ◆ *Doug Cox*, Menominee Indian Tribe of Wisconsin: National Tribal Environmental Council Conference, Green Bay; field tour and presentation on the tribe's wild rice project and its participation in the natural resource damage assessment program.
- ◆ *Jennifer Hill-Kelley*, Oneida Tribe of Indians of Wisconsin: National Tribal Environmental Council Conference, Green Bay; field tour and presentation on the tribe's participation in the NRDA program.
- ◆ *Greg Hill* and *George Boronow*, DNR: National Tribal Environmental Council Conference, Green Bay; field tour and presentation on the Lower Fox River cleanup and NRDA program.
- ◆ *Gary Kincaid* and *George Boronow*, DNR: Lower Fox River Basin Partnership Team, Green Bay; field tour and presentation on Little Lake Butte des Morts dredging and West Shore Preserve NRDA habitat project.

June

- ◆ *Jim Hahnenberg*, EPA: Gathering of environmental organizations and citizens, Bay City, Mich.; general Lower Fox River cleanup and how it compares to local Tittabawassee River contamination problem.

The Fox River Current is featuring promising natural resource damage assessment projects in and near the Lower Fox River.

Spotlight On:

Lower Peshtigo River Habitat Preservation

By Tom Nelson, U.S. Fish and Wildlife Service Volunteer

The Lower Peshtigo River wetlands are one of Wisconsin's natural jewels. A diverse environment with hardwood and softwood forests, wetlands along a meandering river and coastal wetlands on the shore of Green Bay, these high-quality ecosystems are capable of supporting a wide variety of aquatic and terrestrial (land) wildlife.

The Peshtigo River Trail, a canoe trail from Peshtigo, Wis. to the river's mouth on Green Bay, takes you past areas where these habitats (homes) for fish, birds and mammals have been injured by the release of PCBs into the Lower Fox River and Green Bay.

Emergent marsh (a swamp that dries up and comes back naturally), meadows and floodplain forests make up the wetlands. On a lazy afternoon canoe trip along the trail, you might see numerous bird species including eagles, great blue herons, ducks and geese. Steep sand banks near the mouth of the river provide nesting sites for swallows while the dry forested land above the bank is habitat for several threatened bird species such as bald eagles, red shouldered hawks and osprey.

The river's rocky bottom is home to numerous fish species. Shallow areas and floodplains provide spawning habitat while other areas offer anyone venturing onto this stretch of the Peshtigo River the opportunity to go fishing for any number of sport fish.

While the shoreline and riverbanks provide excellent habitat for wildlife, they will also provide exceptional outdoor experiences for anyone making the trip into the area. Marinette County Land and Water Conservation Department has acquired a grant to develop a land-based trail system through the area in addition to the existing water trail.



PHOTO COURTESY OF TOM NELSON, U.S. FISH AND WILDLIFE SERVICE VOLUNTEER

A great blue heron on the Peshtigo River Trail, Marinette County, Wis.

According to Greg Cleereman, Marinette County Conservationist, "Purchase of additional lands through the trustee council was the trigger to establish the water trail and now three land trails."

The 950-acre restoration effort was part of a settlement between the natural resource trustees and Georgia-Pacific.

The natural resource trustees are comprised of Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, Oneida Tribe of Indians of Wisconsin, Menominee Indian Tribe of Wisconsin, Michigan Attorney General, Michigan Department of Environmental Quality, Michigan Department of Natural Resources and the National Oceanic and Atmospheric Administration

For further information on natural resource damage assessment projects, contact Trustee Council Coordinator Colette Charbonneau, FWS, at Colette_Charbonneau@fws.gov or at (920) 866-1726.

NRDA Funds Brown County Waterfowl Preserve Expansion

By Susan Pastor, U.S. Environmental Protection Agency

Thanks to \$310,000 in natural resource damage assessment restoration settlement funds, construction is beginning at the Barkhausen Waterfowl Preserve, Suamico.

Barkhausen, which is part of the Brown County Parks system, will use the money to build a new multi-purpose building to conduct youth-oriented nature education projects and aquaculture activities, as well as to serve as a place for equipment storage.

According to Lower Fox River/Upper Green Bay Basin Supervisor George Boronow, Wisconsin Department of Natural Resources, the new facility will allow Barkhausen to expand its nature educational programs for the public. "They have an unsuitable old building that is structurally unsound," he said. "This new one will replace it and will have areas for nature education projects such as building bluebird houses."

Aquaculture programs will include an area for youth to raise fish, such as yellow perch and bluegills, which could eventually be used to stock county ponds. "It can take four to five years for fish to reach a catchable size in the wild," said Boronow. "At Barkhausen, it could take about two years. The emphasis here is on youth and providing safe fishing opportunities for them."

Boronow, who has been to Barkhausen several times, explained that there is also an emphasis on creating habitat (homes) for fish, frogs and birds. The facility also offers trails for hiking and cross-country skiing as well as picnic areas.

"Just about every school group in the area goes there," he concluded. "They do a real good job."

Funding for this project is through an agreement between the natural resource trustees and Georgia-Pacific to compensate for, or replace, resources that were lost or injured due to PCB contamination in the Lower Fox River.

The natural resource trustees are comprised of Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, Oneida Tribe of Indians of Wisconsin, Menominee Indian Tribe of Wisconsin, Michigan Attorney General, Michigan Department of

Environmental Quality, Michigan Department of Natural Resources and the National Oceanic and Atmospheric Administration.



PHOTO COURTESY OF TOM NELSON, U.S. FISH AND WILDLIFE SERVICE VOLUNTEER

On hand for the May 31 ground breaking for a multi-purpose building at the Barkhausen Waterfowl Preserve are (from left) George Boronow, DNR, Randy Harbath, Georgia-Pacific, Carol Kelso, Brown County, Doug Hartman, Brown County Parks, and Bill Dowell, Brown County Parks.

New DNR Fish Guide Is Available

By Susan Pastor, U.S. Environmental Protection Agency

The 2005 version of Wisconsin Department of Natural Resources' booklet on fish advisories in the state's waterways, including the Lower Fox River, is now available.

The 36-page "Choose wisely: A health guide for eating fish in Wisconsin" gives specific advice on mercury and PCBs. It details the water bodies that contain fish with these contaminants and the types of fish that can be found there. It also states whether fish should not be eaten at all or eaten in limited amounts.

Background information on mercury and PCBs, as well as tips on how to use the booklet, is also included.

Copies can be obtained at all DNR service centers. To have one sent, call or write the DNR Bureau of Fisheries Management and Habitat Protection, P.O. Box 7921, Madison, WI 53707, (608) 267-7498. The guide is also available online at: www.dnr.wi.gov/org/water/fhp/fish/pages/consumption.

Profile On ... Bruce Baker

Lower Fox River issues are a way of life for DNR manager

By Kelly Mella, Wisconsin Department of Natural Resources

How is it that Bruce Baker, deputy administrator for Wisconsin Department of Natural Resources' water division, has come to spend much of the last 30-plus years working on various Fox River projects? To hear him tell it, it's fate.

"As a child, my first words were 'clean water,'" joked Baker.

Kidding aside, the Fox River does seem to have an uncanny ability to keep sneaking back into his life. "It's not that I had this dream or vision to spend my entire career on the Fox," he said. "It just sort of happened."

Baker's first brush with the hardest working river in the world occurred in 1970 while he was studying for his bachelor's degree in civil and environmental engineering at the University of Wisconsin-Madison. Moving on from jobs that involved "mattresses and mowing cemeteries," Baker, who grew up in northern Wisconsin, worked with a professor surveying the Fox River to determine how wastewater discharge from paper mills was mixing with the river currents. It was a joint project between the university and NASA, to test their newly developed remote sensing equipment.

Besides being his first career-oriented job, Baker, 55, said the experience is memorable for another reason. "I can never forget working on the Fox because that's where I was when my son, Brett, was born. My wife will never forget it either!"

After graduating, Baker was hired by U.S. Environmental Protection Agency in 1971 and worked in its Chicago office for 11 years. One of his responsibilities was to manage grant money for EPA-funded projects in Wisconsin, including the wasteload allocations for both the Wisconsin River and—you guessed it—the Fox River. Wasteload allocations set the maximum level of discharge that can be put into a river.

When it was time to move on, Baker returned to Wisconsin to join DNR as director of the water



Bruce Baker

resources bureau. His ties to the Fox River withstood the move. One of his first projects was to oversee the completion of the wasteload allocation from the De Pere Dam down to Green Bay. It was a controversial process that would prepare Baker well for his later work on the Lower Fox River cleanup.

After finishing the wasteload allocations in 1985, Baker and his DNR colleagues started talking about contaminated sediment in the river and what could be done to clean it up. They formed the first working group, known as the Fox River Coalition, to discuss the issue and to do the research and technical work required to determine the scope of the problem and the best way to approach it.

"Rather than just go it alone, we included representatives from the paper companies and local governments," Baker recalled. "We knew it would work out better in the long run if we involved all the interested parties from the beginning."

Baker said that developing trust and good working relationships with industry representatives from the start helped the companies understand the magnitude of the problem and the high level of public support for fixing it. "There's a lot of underlying public support for clean

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water in this state, and that has played a big part in the success of the cleanup,” he noted. “It allowed us to push forward, and it helped industry realize that the issue wouldn’t just go away.”

The current stage of Baker’s career began with DNR’s reorganization. He wasn’t working directly on the Lower Fox River at first, but naturally, that situation wouldn’t last. In 1995, then-Secretary George Meyer decided he wanted someone in upper-level management to head the Lower Fox River cleanup project, and tapped Baker for the job. He’s been closely involved ever since.

Baker said his favorite aspect of working on the cleanup is finally seeing some results. “Something on this scale doesn’t happen overnight, and it involves a lot of people, so it’s nice to see it all coming together,” he said. He also noted that the Lower Fox River has been a model for PCB cleanups across the country, and praised the excellent “national-caliber” work of those involved.

The project has taught him valuable lessons as well. “One thing I’ve learned,” he related, “is that after all the disputes and rattling of swords at the beginning, we still had to sit down and work out the best solution together. The best progress came through cooperation.”

For the future of the Lower Fox River, Baker said he hopes it continues to get the management attention it

deserves and needs, adding that it’s always cheaper to prevent pollution than to clean it up. “It’s a great resource, and it should be protected,” he said. “There’s no reason to believe that won’t happen—it’s become a part of the fabric of the local communities. A lot of people are very invested in keeping it clean and healthy.”

Believe it or not, Baker does have some time away from work. He said he enjoys “reading stories about the Fox River and making wood carvings of water treatment plants...just kidding.” Actually, Baker said he prefers to “hit a golf ball (with his wife Diana) over water rather than work on it.” He also likes to make “furniture and sawdust” in his home wood shop and spend time with his two Tibetan terriers.

**Check out these Web sites:**

<http://dnr.wi.gov/org/water/wm/lowerfox/>

<http://www.epa.gov/region5/sites/foxriver/>

<http://contaminants.fws.gov/Issues/Restoration.cfm>

<http://www.fws.gov/midwest/nrda/index.html>

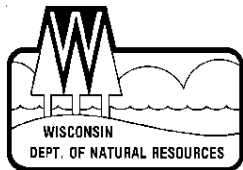
Information Available at Local Libraries

The Intergovernmental Partners invite the public to review technical reports, fact sheets and other documents related to the Lower Fox River cleanup at information repositories set up in the reference sections of the local libraries listed below. Information repositories at the public libraries in De Pere, Kaukauna, Little Chute, Neenah and Wrightstown have been discontinued. However, binders containing fact sheets are being maintained at these locations as well as at the following repositories:

- **Appleton Public Library**, 225 N. Oneida St., Appleton, Wis.; (920) 832-6170
- **Brown County Library**, 515 Pine St., Green Bay, Wis.; (920) 448-4381, Ext. 394
- **Door County Library**, 107 S. Fourth Ave., Sturgeon Bay, Wis.; (920) 743-6578
- **Oneida Community Library**, 201 Elm St., Oneida, Wis.; (920) 869-2210
- **Oshkosh Public Library**, 106 Washington Ave., Oshkosh, Wis.; (920) 236-5205



An administrative record, which contains detailed information upon which the selection of the final site cleanup plan was based, is also available for review at two DNR offices: 801 E. Walnut St., Green Bay, Wis. and 101 S. Webster St., 2nd Floor, Madison, Wis. An administrative record is also available at the EPA Record Center, 77 W. Jackson Blvd., 7th Floor, Chicago, Ill.



Prepared by the Fox River Intergovernmental Partnership: Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Menominee Indian Tribe of Wisconsin, Oneida Tribe of Indians of Wisconsin, and National Oceanic and Atmospheric Administration. Supporting agencies include Wisconsin Department of Health and Family Services, U.S. Agency for Toxic Substances and Disease Registry, and U.S. Army Corps of Engineers.

Disclaimer: The opinions expressed in these articles are solely those of the authors and are not necessarily shared by all members of the Fox River Intergovernmental Partnership.

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